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REMARKS/ARGUMENTS

Claims 1, 3-4 and 6-18, and 20-22 are pending. Claims 2, 5 and 19 are now canceled. Claims 7, 9, 12-15 and 22 are amended herein.

Applicants note with appreciation the allowance of Claims 1, 3, 4, 6 and 20-22.

Claims 7 and 12-15 stand rejected under 35 U.S.C. Section 103(a) as being unpatentable over Schneider et al. (U.S. Pat. No. 6,333,094) in view of Henkel (WO 99/28363). Reconsideration and withdrawal of the rejection are respectfully requested in view of the following remarks.

The Schneider reference discloses a multilayer thermoformable composite synthetic veneer film. The veneer film comprises "at least one base film or base layer of polyolefin or comprising polyolefin" (column 2, lines 65-66) and a "bonding layer, adhesion-promoting layer or reactant layer arranged below the base film or base layer" (column 3, lines 14-16), with the latter layer being between the base film or base layer and the substrate to which the veneer film is being applied. In the figures of the reference, (2) represents the base film or base layer, while (1) represents the bonding layer, adhesion-promoting layer or reactant layer. The veneer film may be bonded to the substrate using an adhesive or glue such as a hot melt adhesive or a "2-part adhesive or glue (PU)" (column 8, lines 12-22).

Applicants' Claim 7 has been amended to recite a "method for gluing a poly(meth)acrylate film to a substrate". This film corresponds in function to the base film or base layer (2) of the Schneider veneer film, yet is quite different with respect to its chemical composition. According to the Schneider reference, the base film or base layer must be a polyolefin film, while Applicants' film is a poly(meth)acrylate film. It has heretofore been difficult to form weather-resistant laminates from poly(meth)acrylate films using conventional hot melt adhesives, as mentioned in the paragraph beginning at page 3, line 35, of Applicants' specification.

The Schneider reference teaches that a bonding layer, adhesion-promoting layer or reactant layer (1) must be utilized in order to achieve satisfactory attachment of a polyolefin base layer to a substrate using an adhesive or glue. It provides no guidance whatsoever with regard to the problem of bonding a poly(meth)acrylate base layer to a substrate so as to form a weather-resistant bond. In particular, the reference does not teach or suggest any specific type of adhesive or glue that might be appropriate for such application.

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A worker of ordinary skill in the art would not have found it obvious from the disclosure of the Henkel reference to select or adapt any of the adhesives taught therein for use in the particular application which is the subject of Claim 7, i.e., the bonding of a poly(meth)acrylate base film to a substrate comprised of a thermoplastic, wood, or aluminum. That is, although the Henkel reference indicates that the hot melt adhesives taught therein "can be readily adapted to a variety of applications where hotmelts are commonly used" and points out that such adhesives have improved heat resistance, moisture resistance and solvent resistance (page 18, first full paragraph), their use in laminating poly(meth)acrylate films to such substrates is not mentioned or suggested. The worker of ordinary skill in the art therefore would have had no reason to suspect that the hot melt adhesives of the Henkel reference would provide exceptionally good performance when utilized with base films of this type. Put a different way, the Henkel reference would not have reasonably led such worker to select this particular type of hot melt adhesive from among the many known types of hot melt adhesives for use in this specific laminating application (i.e., joining a poly(meth)acrylate base film to a thermoplastic, wood or aluminum substrate).

The Examiner's attention is directed to the working examples of Applicants' specification, wherein the unexpected superiority of the hot melt, moisture-curing adhesives recited in Claim 7 in bonding poly(meth)acrylate base films to substrates as compared to other hot melt adhesives is demonstrated. To more fully explain the significance of the working examples, Applicants are submitting herewith a declaration under 37 C.F.R. Section 1.132 of Dr. Horst Hoffmann (one of the inventors named in the above-referenced application). The Examiner is respectfully requested to review and consider said declaration, which addresses certain of the questions raised by the Examiner in paragraph 14 on page 5 of the Office Action summary mailed October 20, 2005.

Claims 7-9 stand rejected as unpatentable over Fields et al. (U.S. Pat. No. 6,440,546) in view of Henkel (WO 99/28363). Reconsideration and withdrawal of the rejection are respectfully requested in view of the following remarks.

The Fields reference teaches flexible, weatherable decorative sheet material comprising a thermoformable decorative paint film having an inner surface and a weatherable, low gloss outer surface suitable for forming an exterior finish for a part (abstract). The Examiner has noted that Figures 4-5 illustrate sheet materials comprising

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color coats, clear coats, adhesives, and a thermoformable backing. She has further pointed out (in a previous Office Action) the disclosure of column 6, line 26, through column 7, line 15 and the example, although these sections of the Fields reference in fact provide no description of the urethane polymers suitable for use as the adhesive. "Acrylic polymers" are mentioned as possible components of the clear coats and color coats. It is also noted that the adhesives used may include "urethane adhesives", although the Examiner has admitted that the reference does not disclose the specific adhesive composition recited in Applicants' Claim 7. In particular, the reference does not teach or suggest the use of a hot melt adhesive or a moisture-curing adhesive or a hot melt, moisture-curing adhesive. Instead, the reference proposes using a solvent-borne adhesive, as indicated by the teaching that the adhesive layer which is applied must be dried (see column 9, lines 10-13). It thus would not have been obvious to a worker of ordinary skill in the art to substitute a moisture-curing, hot melt adhesive, such as the type recited in Applicants' claims.

The Henkel reference would not have supplied the worker of ordinary skill in the art with the motivation necessary to modify the process taught by the Fields reference so as to arrive at Applicants' claimed invention. In particular, the Henkel reference does not suggest selecting or adapting any of the adhesives taught therein for use in the particular application which is the subject of Claim 7, i.e., the bonding of a poly(meth)acrylate base film to a substrate comprised of a thermoplastic, wood, or aluminum. That is, although the Henkel reference indicates that the hot melt adhesives taught therein "can be readily adapted to a variety of applications where hotmelts are commonly used" and points out that such adhesives have improved heat resistance, moisture resistance and solvent resistance (page 18, first full paragraph), their use in laminating poly(meth)acrylate films to such substrates is not mentioned or suggested. The worker of ordinary skill in the art therefore would have had no basis for believing that the hot melt adhesives of the Henkel reference would provide exceptionally good performance when utilized with base films of this type. Put a different way, the Henkel reference would not have reasonably led such worker to select this particular type of moisture-curing, hot melt adhesive from among the many known types of urethane adhesives for use in this specific laminating application (i.e., joining a poly(meth)acrylate base film to a thermoplastic, wood or aluminum substrate). The Examiner is again invited to review the working examples in Applicants' specification, which are further supplemented by

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the declaration of Dr. Horst Hoffman accompanying this response and which demonstrate the unexpected advantages of using the moisture curing, hot melt adhesives recited in Claim 7 in this particular application as compared to other types of adhesives.

Claim 16 stands rejected under 35 U.S.C. Section 103(a) as being unpatentable over Schneider et al. (U.S. Pat. No. 6,333,094) in view of Henkel (WO 99/28363) as applied to Claims 7 and 12-15 above, and further in view of Kokranek (U.S. Pat. No. 4,743,509). Reconsideration and withdrawal of the rejection are respectfully requested in view of the following arguments.

The Schneider and Henkel references have been previously discussed in connection with the rejection of Claim 12, from which Claim 16 depends. The subject matter of Claim 12 is believed by Applicants to be patentable over these references for the reasons previously explained. Claim 16 should therefore also be considered to define patentable subject matter. It is further noted that the thermoplastic contact adhesive layers of the Kokranek reference are formed from solvent-borne adhesives (see column 4, lines 16-17, column 5, lines 48-55), not from moisture-curing, hot melt adhesives as required by Applicants' claims. Additionally, the contact adhesives of the Kokranek reference do not contain polyurethane prepolymers bearing reactive NCO groups, as also required by Applicants' claims. In view of these fundamental differences in the type of adhesive being used, a worker of ordinary skill in the art would not have found it obvious to apply a primer to the surface of the shaped article when utilizing the particular moisture-curing, hot melt adhesive set forth in Applicants' Claim 16.

The objection to Claim 19 under 37 C.F.R. Section 1.75 has been obviated by cancellation of said claim.

The Examiner has responded to Applicants' arguments in part as follows:

In response to the applicant's arguments of unexpected results, it is first noted that the results are not representative of the closest prior art. The specification gives no guidance as to how the adhesives of the comparative examples differ from the compositions of the claimed invention.

The PURMELT QR5305 hot melt polyurethane adhesive used in Examples 4 and 7 is prepared by reacting both liquid and semi-crystalline polyester polyols with di- and/or

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polyisocyanates. However, no diols selected from the group consisting of polyether-polyols and alkylene diols, as required by Applicants' Claim 7, is utilized. Additionally, PURMELT QR5305 does not contain and is not prepared using any low molecular weight polymer obtained by polymerization of one or more olefinically unsaturated monomers (also a required component of Applicants' claimed invention).

The PURMELT QR3530-24 hot melt polyurethane adhesive used in Example 5 is prepared by reacting a crystalline polyester polyol, a polyether polyol having an average molecular weight greater than 1000, a second polyether polyol having an average molecular weight of 1000, and a low molecular weight polymer obtained by polymerization of one or more olefinically unsaturated monomers with di- and/or polyisocyanates. A diol selected from the group consisting of polyether-polyols and alkylene diols having a molecular weight not greater than 800 (a required component of Applicants' invention, as recited in Claim 7) is not utilized.

The Examiner further notes:

The Fields reference teaches the use of hot melt polyurethane adhesives for adhering an acrylic layer to a substrate. How do the adhesives of the comparative examples compare to the adhesives of the Fields reference?

Applicants are not able to answer this question, as the Fields reference does not mention any specific types of polyurethane adhesives and does not provide any information regarding the components that could be used to prepare polyurethane adhesives suitable for the end-use described in the reference. So far as Applicants can determine, the only discussion of polyurethane adhesives in the Fields reference is found in Column 7, lines 46-51. The reference fails to mention, for example, the possibility that the polyurethane adhesive could be a hot-melt adhesive or a moisture-curing adhesive, whereas the adhesive used in the method claimed in Applicants' Claim 7 must be both a hot-melt and moisture-curing adhesive. In fact, the disclosure at Column 7, lines 57-59, and Column 9, lines 10-13, suggests that the Fields reference only contemplated the use of solvent-borne adhesives, not hot-melt adhesives.

The additional questions that the Examiner has raised in Paragraph 14 of the Office Action Summary ("Response to Arguments") are believed to be fully addressed by the

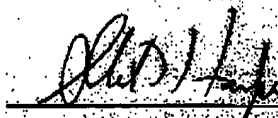
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declaration of Dr. Horst Hoffmann being submitted herewith. The Examiner is respectfully requested to consider such declaration in full.

In view of the foregoing, it is respectfully submitted that this application is now in condition for allowance. Accordingly, an early Notice of Allowance is earnestly solicited.

Respectfully submitted,



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